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# Region Operations Center Template Analysis Tool Technical Brief

LCDR BAKER

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# Overview

- ROC – TAT walk through

Microsoft Excel Worksheet

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# Objectives:

- Demonstrate an n-tier Microsoft Office Desktop Solution based on CHCS data.
- Identify the Advantages/Disadvantages of exporting CHCS data to Office Apps.

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# Background

- OCT 01 – Lead Agent directs Operations Center to conduct daily analysis of available Primary Care appointments in the region.
- V.1.0 operational within 10 days of request.
- MAR 02 – LA directs analysis of Specialty Care availability within the NCA
- V.5.0 – Launched 1 APR 02

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# Baseline Requirements

- "Near" Real-Time
- Regional (All 7 Hosts)
- Rapid Executive Level Screening
  - The TMA – TAT while having a very friendly user interface, does not have a screening functionality or a Regional view
- Provide Sufficient Detail for Further Analysis
  - At the OLA level
  - **At the MTF level**

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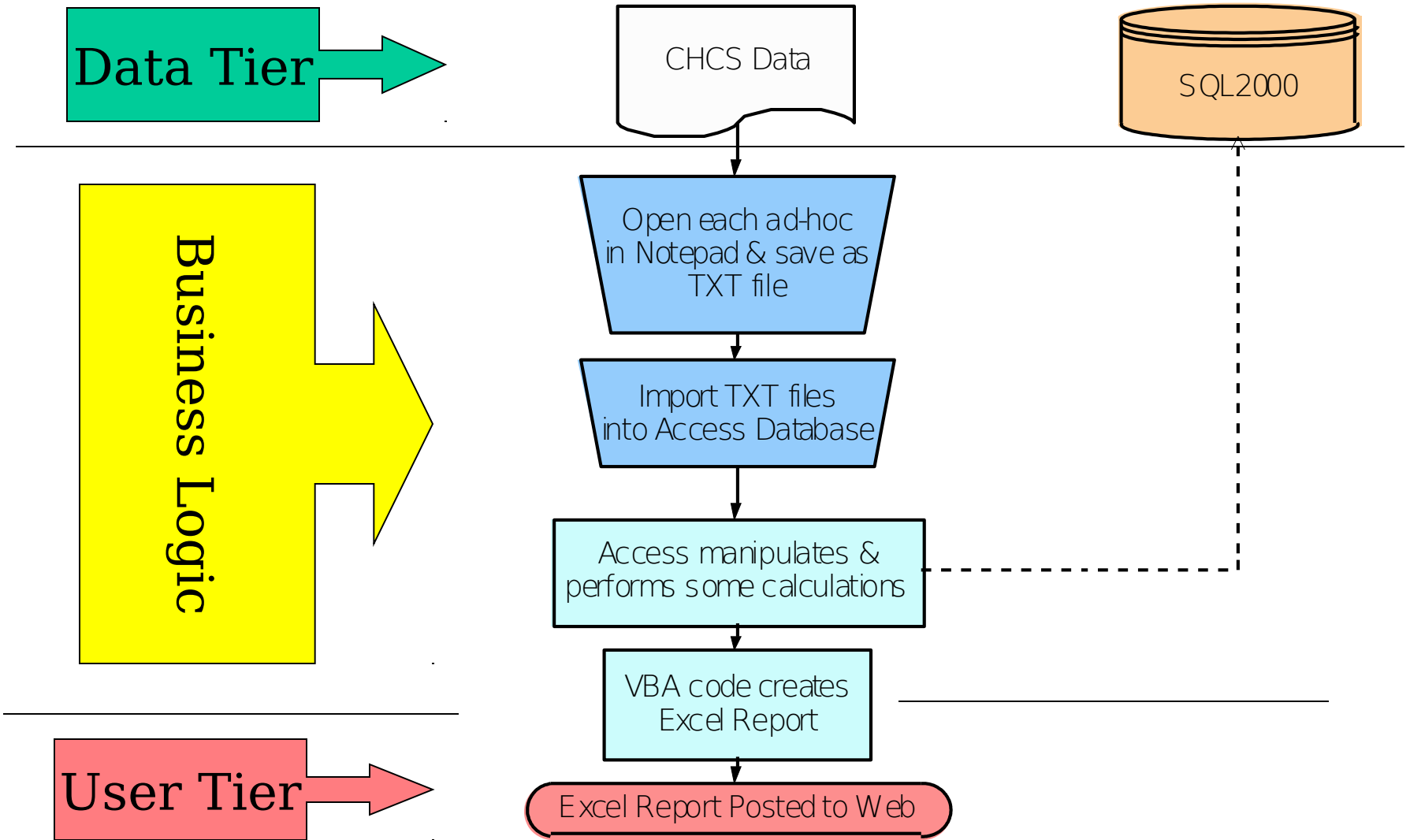
# Solution Architecture


Data Tier
CHCS Data
SQL2000
Business Logic
Open each ad-hoc in Notepad & save as TXT file
Import TXT files into Access Database
Access manipulates & performs some calculations
VBA code creates Excel Report
User Tier
Excel Report Posted to Web

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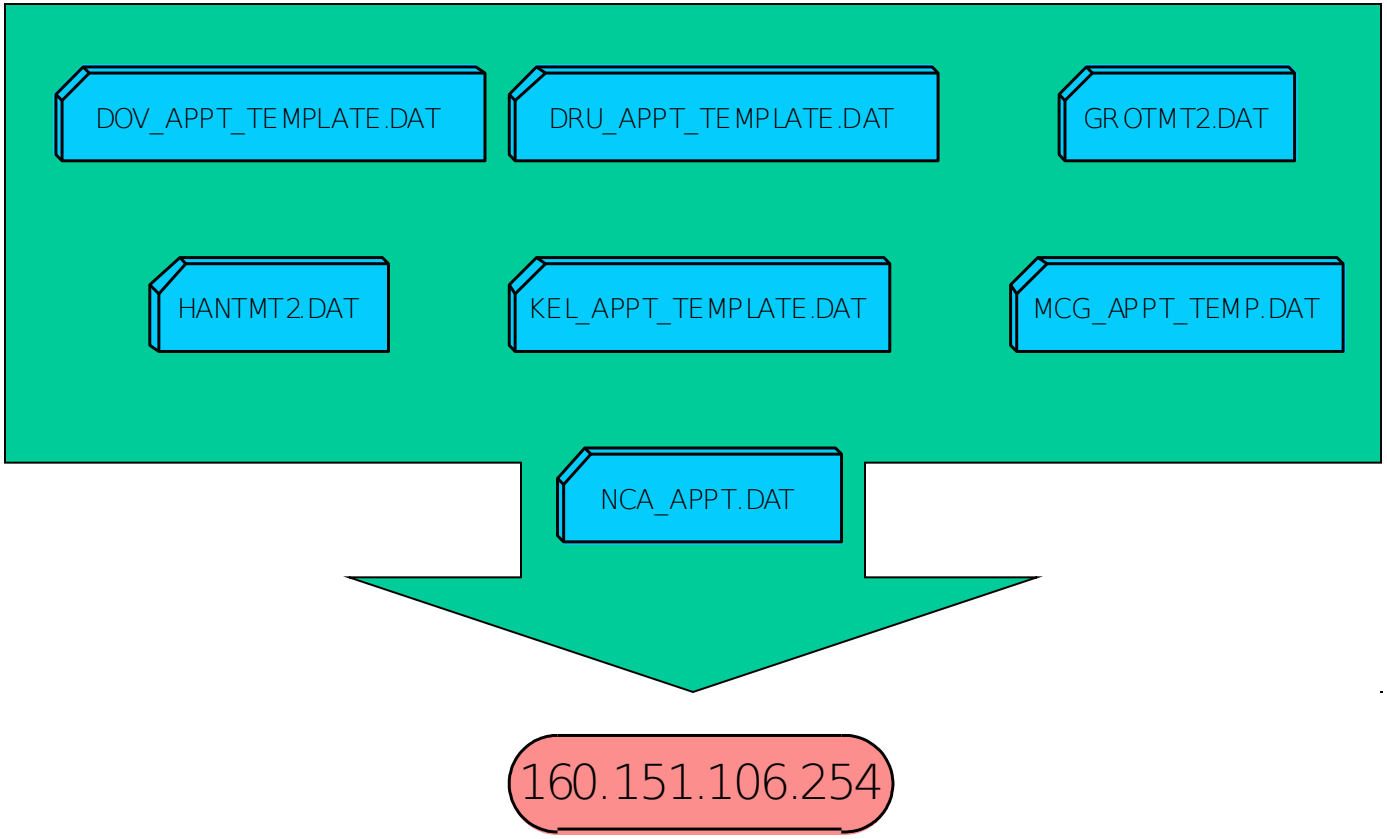
# CHCS - Date Tier




Data is pulled from the CHCS Schedulable Entity File

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# Access - Middle Tier

- Primary purpose is to apply business logic to data & create report
  - Not to Store Historical Information
- Tables
  - 98 Total
  - 71 are modified daily
- Queries
  - 159 Total
  - 111 are used in the report production
- VBA Code
  - 6,497 Lines

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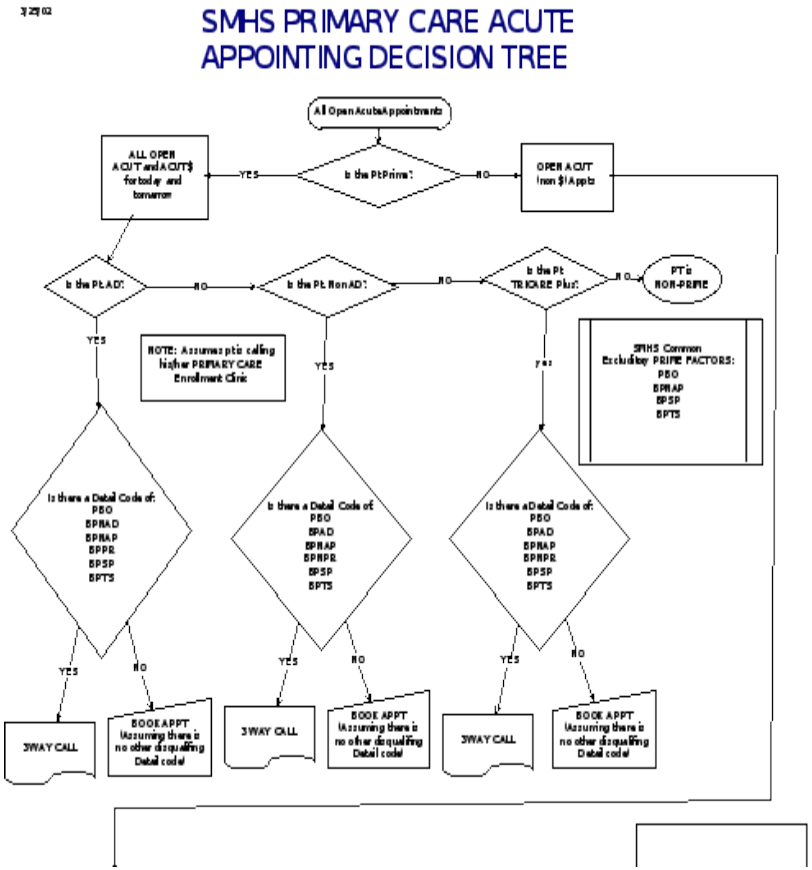
# Business Logic

What are the business rules?

- Define
- Verify
- Apply


SMHS PRIMARY CARE ACUTE APPOINTING DECISION TREE
All Open Acuta Appointments
ALL OPEN ACUT and ACUT$ for today and tomorrow
Is the Pt Prime?
YES
NO
OPEN ACUT from $1 Appts
Is the Pt AD?
NO
Is the Pt Non AD?
NO
Is the Pt TRICARE Plus?
NO
PT is NON-PRIME
YES
NOTE: Assumes pts calling his/her PRIMARY CARE Enrollment Clinic
YES
SMHS Common Excludes/ PRIME FACTORS: PSO BPNAP BPSP BPTS
Is there a Datail Code of: PSO BPNAD BPNAP BPPR BPSP BPTS
Is there a Datail Code of PSO BPAD BPNAP BPNPR BPSP BPTS
Is there a Datail Code of: PSO BPAD BPNAP BPNPR BPSP BPTS
YES
NO
3WAY CALL
BOOK APPT (Assuming there is no other disqualifing Datail code)
3WAY CALL
BOOK APPT (Assuming there is no other disqualifing Datail code)
3WAY CALL
BOOK APPT (Assuming there is no other disqualifing Datail code)

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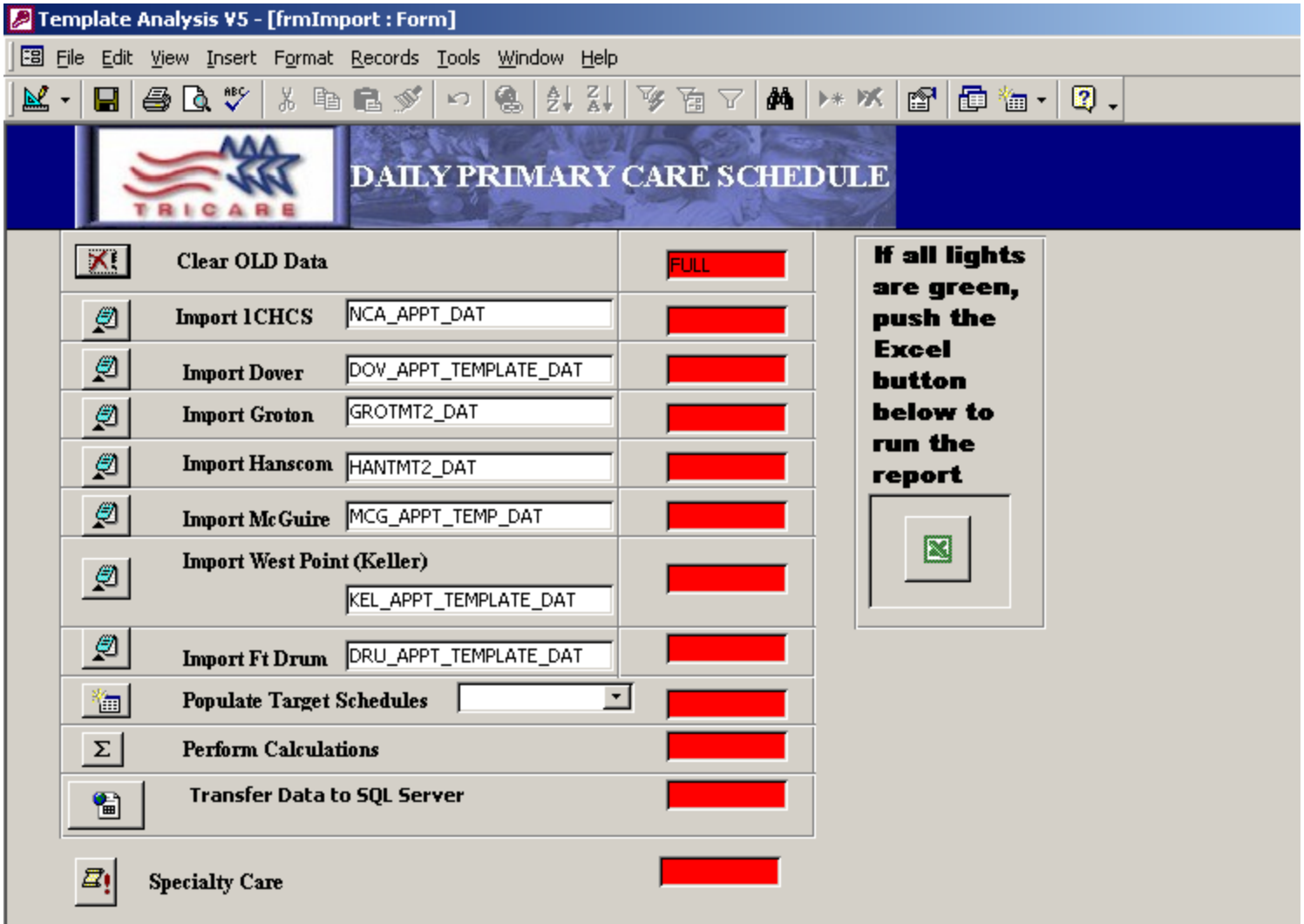
# Middle Tier is Not for the End User!



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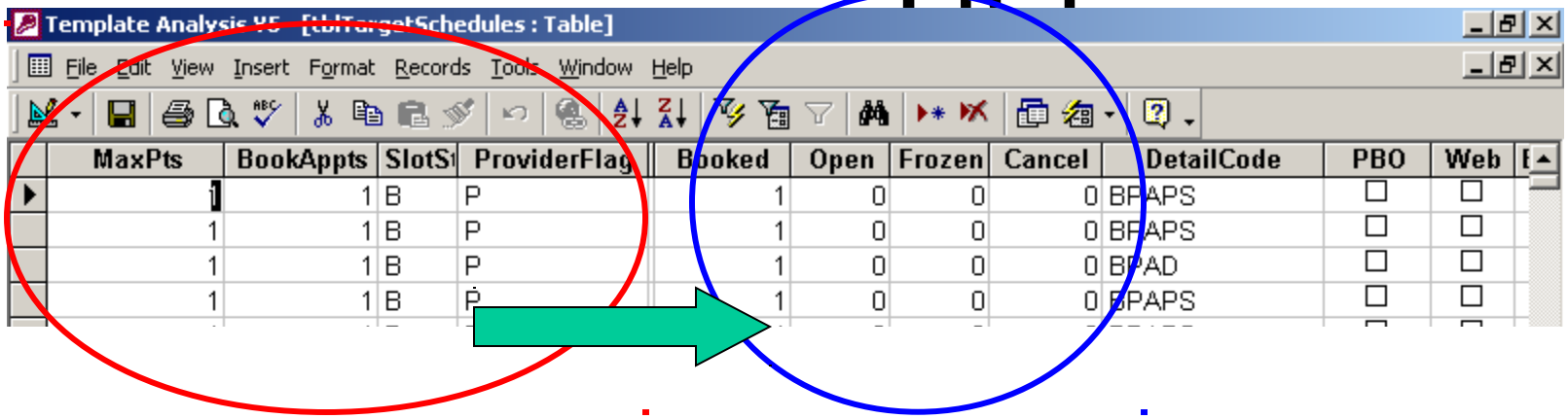
# Bringing CHCS data to the Middle Tier

- Importation is easy with Import Specifications based on Fixed Width
  - Define the specification 1 time
- CHCS Report Problem Areas:
  - Headers
  - Footers
  - Section Breaks
- (Remember not a true n-tier solution, the business logic tier does not communicate directly with the data tier)

# Converting CHCS Data in the Middle Tier


Template Analysis V5 - [tblTargetSchedules : Table]
File Edit View Insert Format Records Tools Window Help
MaxPts BookAppts SlotSi ProviderFlag Booked Open Frozen Cancel DetailCode PBO Web
1 1 B P 1 0 0 0 BPAPS
1 1 B P 1 0 0 0 BPAPS
1 1 B P 1 0 0 0 BPAD
1 1 B P 1 0 0 0 BPAPS

- Calculating Booked/Open/Frozen/Canceled appointments
  - DANGER! Are you really getting what you think you asked for??
- Identifying the occurrence of specific

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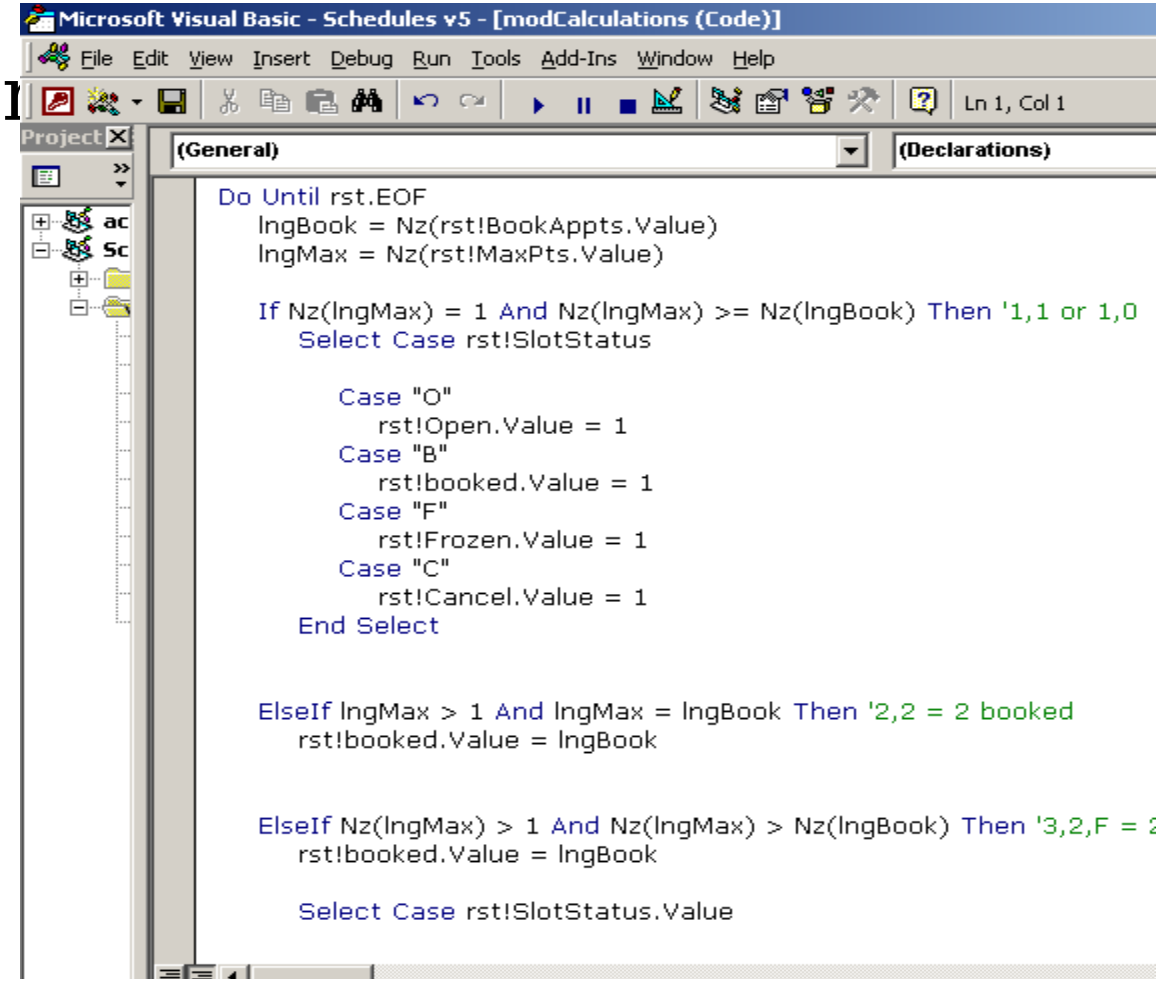
# Conversion Techniques

- Action Quer
- VBA Code


Microsoft Visual Basic - Schedules v5 - [modCalculations (Code)]
File Edit View Insert Debug Run Tools Add-Ins Window Help
Ln 1, Col 1
Project
(General)
(Declarations)
Do Until rst.EOF
lngBook = Nz(rst!BookAppts.Value)
lngMax = Nz(rst!MaxPts.Value)
If Nz(lngMax) = 1 And Nz(lngMax) >= Nz(lngBook) Then '1,1 or 1,0
Select Case rst!SlotStatus
Case "O"
rst!Open.Value = 1
Case "B"
rst!booked.Value = 1
Case "F"
rst!Frozen.Value = 1
Case "C"
rst!Cancel.Value = 1
End Select
ElseIf lngMax > 1 And lngMax = lngBook Then '2,2 = 2 booked
rst!booked.Value = lngBook
ElseIf Nz(lngMax) > 1 And Nz(lngMax) > Nz(lngBook) Then '3,2,F =
rst!booked.Value = lngBook
Select Case rst!SlotStatus.Value

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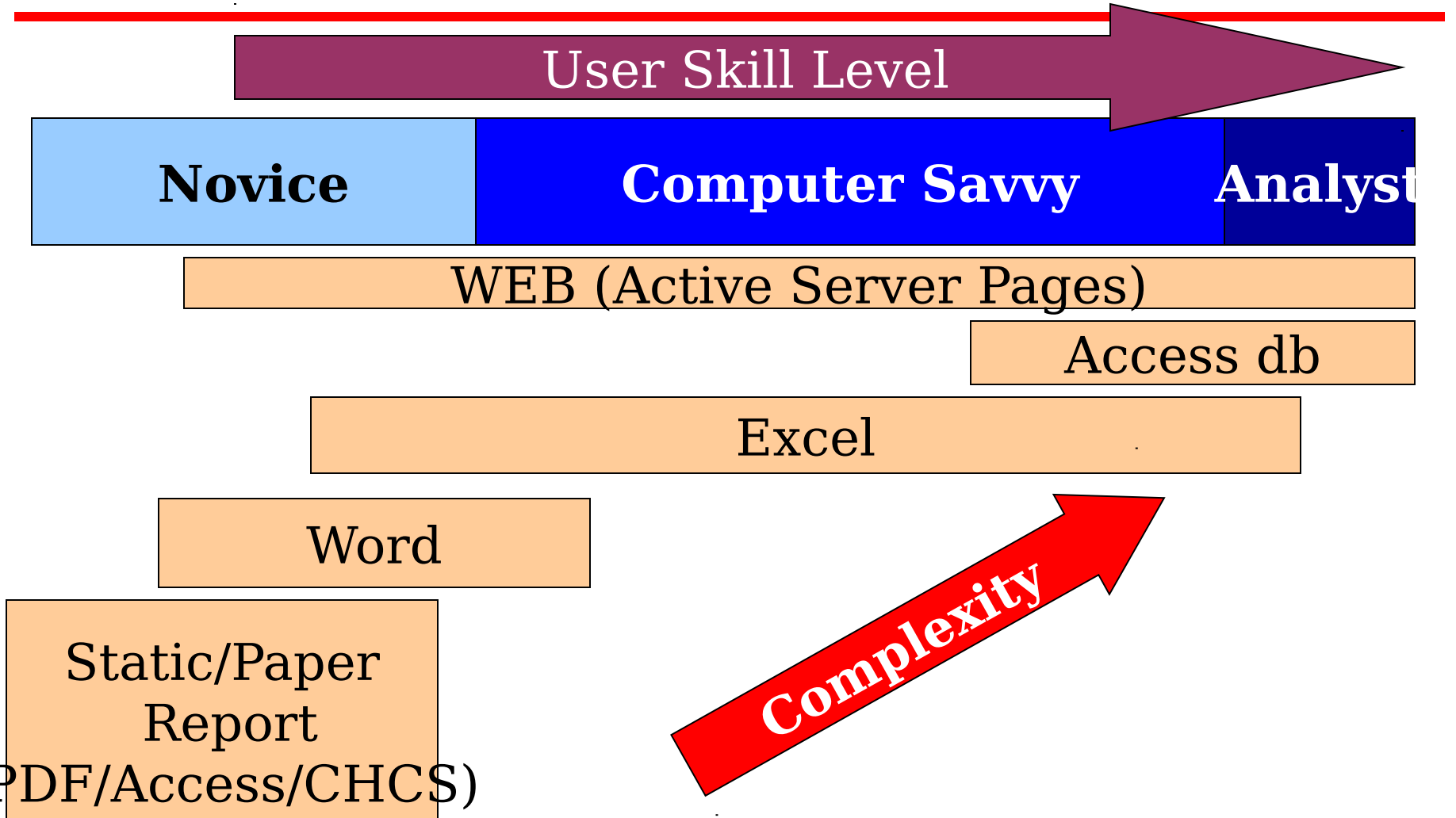
# Designing the User Tier



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# Questions to consider when designing the User Tier

- How interested is the user in using the product?
- What is the range of user skill levels?
- Deployment time-frame
- Production time-frame
- Don’t forget the TAIL
- What is your skill set?
- How much time do you really have to work on it?
- What is the ROI?

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# Excel as the User Tier

- Great flexibility
- Common, easily navigable views for novice users
- Data richness for advanced users
- Tight integration with MS Access
- Preferred tool for complex calculations

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# Deploying Your Solution

- Documentation, documentation, documentation
- We have trained our users to be highly suspicious of MHS data
  - Data Dictionary
  - Identify all data sources
  - Clearly identify all calculations
- Data Security

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# Ultimate Goal: Affecting Change

- Make their lives easier
- Make it relevant to their current work processes
- Make them look good
- Utilize Peer Comparison

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# Advantages/Disadvantages of using CHCS in n-tier solutions

<u>Advantages</u>

- Data Quality
  - Accuracy
  - Timeliness
  - Believability

<u>Disadvantages</u>

- Ad-hoc writing
- No direct connection between data tier and middle tier
- Requires knowledge of multiple systems

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# Questions & Comments